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REPORT OF THE SURGICAL DEPARTMENT

New York Hospital - Cornell Medical College

For The Year
Sept. 1, 1932
To
Sept. 1, 1933

By
GEORGE J. HEUER, M. D.

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George J. Heuer, M. D.

Professor of Surgery.

Through the affiliation of the New York Hospital and Cornell Medical College, the New York Hospital has become an integral part of an educational institution. It is a hospital which, in addition to its functions of properly caring for the sick, contributes in a very large way to the education of undergraduate and graduate medical students. To confine a report to the care of patients alone would be to disregard the important function of the Hospital as a teaching and research institution; and I am, therefore, in this first year's report including not only a report upon the care of the surgical patients admitted, but a summary, so far as it concerns surgery, of the Hospital's teaching and research activities.

I. The Care of Patients. In the plans of the New York Hospital, the Surgical Department is assigned the 5th to the 11th floors, inclusive, of the central portion of the Hospital Building, and a pavilion of 27 beds in the Pediatric Building. In addition it has the privilege of using the private floors (114) beds for the care of private patients. The total number of pavilion beds available, exclusive of private wards, is 285. These beds are intended to serve not only general surgery but the specialties of Urology, Orthopedic Surgery, Oto-Laryngology and Ophthalmology. With the opening of the Hospital, Surgery was assigned 116 beds instead of 285, and the question arose how best to utilize this limited bed capacity. It was decided that it would be better to use these beds for general surgery instead of dividing them up among general surgery and the surgical specialties; for it was hoped that the

limitation of beds was only a temporary matter. Later in the year it was decided that beds should be provided for patients of the attending staff who were seen in the private offices of the staff and who were unable to pay private ward rates. On March 13th, 1933, another surgical ward was opened for this purpose providing 20 general surgical beds and 10 urological beds. Still later in the year certain of the private rooms were converted into semi-private wards to take care of the Nose and Throat cases. Beginning with 116 pavilion beds the department subsequently expanded to 146 pavilion beds and a varying number of semi-private beds.

(1) Pavilion Beds. (a) General Surgery

Between Sept. 1, 1932 and Sept. 1, 1933, 2105 patients were admitted to the Surgical pavilions. Of this number 442 were not subjected to operation, either because the condition presented did not warrant operation or because the patients refused operation. Upon the remaining 1663 patients a total of 1765 surgical operations was performed. Following operations there was a total of 43 hospital deaths, an operative mortality of 2.4%, a case mortality of 2.6%. A discussion of the deaths will be given in a following paragraph.
A list of the operations performed is appended.

OPERATIONS CLASSIFIED

Head - Brain - Spinal Cord - Peripheral Nerves.

Fractures - Skull	3	Laminectomy for foreign body	1
Brain Tumors, verified	10	Repair of Meningocele	1
Brain Tumors, unverified	1	Peripheral Nerve Tumor	1
Reelevations	3	Brain Abscess	1
Brain Tumor Suspects	3	Injection Lumbar Ganglia	1
Subtemporal decompressions	2	Sympathectomy	1
Tic Douloureux - sensory	3	Ulnar and Median Nerve Suture	1
Ventriculograms	8	Phrenicectomy	8
Ventricular puncture - therapeutic	1	Frontal Sinus Drainage	1
Laminectomies for Tumors	3	**Total**	**53**

Face.

Excision Lymphangioma Jaw	1
Incision and Drainage Suppurative Parotitis	3
Plastic on Face	7
" " Ear	1
" " Eyebrow	1
Repair Hare Lip	4
Excision Cyst of Nose	1
Excision Cyst of Jaw	1
Excision Epithelioma of Nose	1
Excision Tumor of Tongue	1
" Tumor of Ear	1
" Tumor of Salivary Gland	3
" Tumor of Face	2
Fracture of Mandible	1
Fracture of Zygoma	1
Removal Foreign Body	1
Excision of Rannula	2
Uvulectomy	1
Tonsillectomies	42
Total	**75**

Neck.

Plastic on Neck	1
Excision Glands of Neck	4
Thyroidectomy	136
Excision Thyroglossal Duct	4
" Submaxillary Gland	1
" Branchiogenetic Cyst	1
" Tumor Parotid	1
" Carbuncle	1
Radical Resection Glands of Neck	11
Excision Congenital Sinus of Neck	1
Incision and Drainage Visceral Space of Neck	2
Incision and Drainage Cervical Abscess	17
Tracheotomy	2
Osteotomy Clavicle	1
Exploration of Thyroid Wound	1
Total	**174**

Thorax.

Thoracoplasty	25
Empyema Drainage	17
Rib Resection	6
Open Reduction Clavicle	1
Tumor of Back	2
Exploration or Removal of Chest Tumor	5
Thoracotomy	1
Currettage TBc Joint	1
Thoracotomy for Lung Abscess	9
Exploration of Chest Wound	1
Pneumolysis	2
Abscess of Chest Wall	1
Osteomylitis Rib	1
TBc Shoulder	1
Repair Diverticulum Esophagus	1
Excision of Benign Breast Tumor	36
Radical Breast Amputation	23
Simple Mastectomy	2
Total	**135**

Abdomen.

Appendectomy	248
Hernioplasty, Inguinal	154
" , Epigastric	5
" , Femoral	7
" , Umbilical	4
" , Ventral	23
" , Lumbar	1
" , Diaphragmatic	1
Cholecystectomy	114
Cholecystotomy	2
Cholecystgastrostomy	1
Exploration Common Duct	11
Excision Gastric Ulcer with Gastroenterostomy	11
Suture perforated Gastric Ulcer	5
Excision Marginal Ulcer	2
Suture Perforative Marginal Ulcer	1
Gastrostomy	4
Gastroenterostomy	8
Billroth II	4
Polya Resection Stomach	1
Enterostomy	1
Jejunostomy	3
Colostomy	9
Ileocolostomy	1
Duodeno-jejunostomy	1
Cecostomy	1
Entero-enterostomy	2
Sigmoidostomy	1
Resection Sigmoid	1
Abdomino-perineal Resection Sigmoid	1
Exploration of Colostomy	1

ABDOMEN (Cont.)

Resection of Colon	1
Excision Duodenal Ulcer with Gastroenterostomy	3
Excision Gastric Ulcer	1
Meckel's Diverticulum	3
For Intestinal Obstruction	9
Resection Ileum	1
Resection for Carcinoma Rectum	4
Excision Sinus Tract	1
Peritonitis, General	1
Peritonitis, TBc.	1
Tumor of Umbilicus	1
Gangrene, Abdominal Wall	1
Abscess, Abdominal Wall	1
Closure Colostomy	2
Excision Benign Tumor	1
Excision Malignant Tumor	6
Stricture of Bowel and Rectum	4
Hemorrhoids	78
Fistula in Ano	34
Fissure in Ano	8
Recto-vaginal Fistula	2
Perirectal Abscess	8
Pilonidal Sinus	15
Tumor of Pancreas	1
Secondary Closure Evisceration	1
Biopsy Rectum	1
Dilatation Rectum	1
Repair Ileal Fistula	1
Excision Gaertner's Duct Sinus	1
Excision Condylomata	1
Lipectomy	1
Excision Sarcoma Abdominal Wall	1
Splenectomy	7
Biopsy Spleen	1
Proctoscopic Examination	2
Coccygectomy	1
Whitehead Operation	4
Exploratory Laparotomy	29
Nephrectomy	2
Hysterectomy	6
Myomectomy	1
Salpingectomy	3
Oophorectomy	10
Salpingo-oophorectomy	8
Salpingectomy for Ectopic Gestation	1
Uterine Suspension	6
Dilatation and Currettage	5
Perineal Repair	3
Circumcision	3
Excision Bartholin's Gland	1
Total	**917**

Genito-Urinary.

Suprapubic Cystotomy	12
Renal Calculus	1
Ureteral Calculus	5
Tabetic Bladder	1
Suprapubic Prostatectomy	7
Thorek Operation	2
Excision Varicocele	3
Excision Hydrocele	4
Orchidopexy	6
For undescended Testicle	5
Pan Cystectomy	1
Internal and External Urethrotomy	1
Bilateral Epididymo-vasostomy	1
Bilateral Inguinal Herniotomy	1
Bilateral Epididymectomy	2
Incision and Drainage Abscess Groin	1
Total	**53**

Vascular System.

Ligation Internal Jugular Vein	1
" Femoral Artery and Vein	1
" Subscapular Artery	1
Varicose Veins	11
Arterio-venous Fistula	2
Hemangioma Liver	1
Total	**17**

Extremities.

Upper

Osteotomy	1
Excision Osteochondroma Finger	1
Excision Osteochondroma Arm	1
Excision Head of Radius	3
Open Reduction Olecranon	2
Excision Ganglion Hand	1
Excision Ganglion Wrist	1
Tendon Suture	3
Finger Amputation	3
Incision and Drainage Finger Infection	30
Currettage for Osteomyelitis	2
Open Reduction Fracture Radius	1
Open Reduction Semilunar Bone Wrist	1
Benign Tumor Wrist	2
TBc Wrist	1
Plastic Shortening Ulna	1
Dupuytren's Contracture	3
Traumatic Wounds	12
Thiersch Graft Elbow	1
Total	**70**

Lower

Open Reduction Fracture Patella	3
Open Reduction Fracture Femur	5
Sequestrectomy Osteomyelitis	13
Removal of Osteoma	3
Fulguration of Warts	1
Excision Ganglion of Knee	1
Bunion Operation	1
Onychectomy	1
Kondoleon Operation	5
Biopsy Femur	1
Amputation	10
" below Knees	1
" Toes	3
Removal Bone Plate	1
Excision Bursa	2
Excision Toe-nail	2
Bilateral Subastragaloid Arthrodesis	1
Tumor of Fibula	1
Congenital Dislocation Hip	1
Total	**56**

SKIN AND SUBCUTANEOUS TISSUE.

Abscesses	61
Lipomas	29
Sebacious Cysts	1
Biopsies	33
Adenitis	4
Skin Graft	17
Carbuncles	7
Secondary Closures	7
Removal Foreign Body	4
Total	**163**
Miscellaneous Operations	48

TOTAL NUMBER OF OPERATIONS 1765

An examination of the admissions shows that of the 2105 patients admitted to the surgical wards approximately 1844 (90%) were admitted either through the Out-Patient Department or Accident Ward. This is an indication of the importance of the Out-Patient Department as a "feeder" for the pavilions and of the necessity of a well organized, efficient, smooth-working Out-Patient Department. An examination of the monthly admissions shows that in the past year there has been little seasonal variation. From Sept. 1, 1932 to March 1, 1933, the admissions by monthly periods varied between 126 and 176; from March 1, 1933 to Sept. 1, 1933 (after opening of Floor, Nine - South) varied between 193 and 225. The lowest number of admissions was in September 1932; the highest number in August 1933.

An examination of the operations performed shows the great variety of surgical conditions requiring treatment, yet when the list is analyzed it appears that a few conditions stand out as being far more common than others. Appendicitis (248 appendectomies), hernia (194 operations), gall bladder disease (128 operations), goiter (136 operations), and diseases of the lower rectum and anus, exclusive of cancer (144 operations), together comprise 49% of all operations perform-

ed. Considering the fact that the Hospital hitherto was not especially interested in the surgical diseases of the brain and chest, the number of patients who entered the hospital with these conditions was gratifying. The number of patients presenting themselves with brain tumors and various conditions of the spinal cord and peripheral nerves was 45; the number with surgical diseases of the chest, 78. It probably would not be profitable to the majority reading this report to carry an analysis of the cases further; anyone interested can himself do so from the appended list. The comment I should like to make is that while the number of traumatic and emergency surgical conditions has steadily increased, we still lack sufficient material of this sort for teaching purposes. Whether this lack of special material is due to the location of the hospital or to the lack of an ambulance service, I am at present unable to say.

General Care of Surgical Patients and Immediate Results. It can, I think, be said that the general care of surgical patients has been excellent. Not the least important factors in assuring the cooperation of patients is the manner of their reception on entering the hospital and the surroundings in which they find themselves placed. Many patients, either by writing or by word of mouth, have signified their pleasure in the way they have been received and their delight in their surroundings in the pavilion. It is very evident that the intangible but important things which serve to put the patient in a contented frame of mind and establish confidence in the hospital and those who serve it have been operative this past year. The nursing service has been of the highest order. The work of the surgical supervisors, head nurses and other nurses on the surgical pavilions, has not, in my experience, been equalled, not only in the general care of patients but in the special care necessary in the desperately ill cases. It is a pleasure to speak also of the work of the Dietary Department which has functioned in a highly satisfactory manner. It is, I think, significant that I have not heard a complaint about the hospital food from a pavilion patient.

The immediate results of our treatment of surgical patients in pavilions 5 and 6 shows that of 1844 patients subjected to 1765

operations, 1316 were discharged free from symptoms and apparently well; 343 were improved; 135 were discharged unimproved; and 50 died. These numbers include the cases not subjected to operation. The final results of the surgical treatment of these cases cannot yet be stated. A "Follow-Up" Clinic has been organized under the direction of Dr. Eugene Pool, which is actively engaged in determining the results of our surgical efforts. A more complete statement of the results of this year's work should be possible at the time of next year's report.

The Mortality. The mortality of a surgical service in a general hospital depends not only upon the surgical and nursing personnel which serves the hospital but to a considerable degree upon the kind of surgical conditions treated in the hospital. A surgical service which has a large amount of accident and emergency work will have a fairly high mortality in spite of the excellence of its staff; as will one which cares for a large number of cancer cases. Certain other conditions, as those of brain and chest, still carry a mortality of around 10% or more and the number of such conditions treated will influence a hospital's mortality rate. It has been thus far our attitude not to allow a possibly higher mortality rate to interfere in any way with the proper treatment of surgical patients; and we have, therefore, unhesitantly assumed the risks which were inherent in the treatment we deemed advisable. Our operative mortality as previously noted was 2.4%. Necropsies were obtained in 33 of the 43 deaths, a percentage of 76 . An analysis, with comments, upon the 43 operative deaths follows:

HOSPITAL NUMBER	PRIMARY CONDITION	OPERATION	CAUSE OF DEATH
25892	Cancer Sigmoid	Enterostomy for Intestinal Obstruction	Died Cachexia. No autopsy.
28850	Diverticulum Esophagus	First Stage	Slough Diverticulum Bronchopneumonia. Autopsy.
33074	Recurrent Adenoma Thyroid	Partial Thyroidectomy	Hyperthyroidism. Bronchopneumonia. Autopsy.
32311	Splenomegaly	Splenectomy	Thrombosis portal and splenic veins. Cirrhosis Liver. Autopsy.
1409	Compound depressed Fracture Skull Laceration Cortex	Repair	Brain Injury - Shock No autopsy.
7408	Brain Tumor Cerebellum	Removal Tumor	Died respiratory Failure. Autopsy.
8582	Brain Tumor, cerebellum Dermoid Cyst	Removal Tumor	Hyperpyrexia. Respiratory Failure. Autopsy.
1795	Intussusception, extensive gangrene bowel. Peritonitis.	(1) Resection gangrenous bowel, entero-anastomosis (2) Drainage Peritoneum	Died Peritonitis. Anastomosis perfect. Autopsy.
2768	Perforated gastric Ulcer Peritonitis. 20 hours.	Closure Perforation	Died Peritonitis. Closure perfect. Autopsy.
954	Hyperthyroidism	Subtotal Thyroidectomy	Bronchiectasis, Broncho-pneumonia. Ligature on recurrent nerve. Autopsy.

Analysis of Deaths (*Continued*)

HOSPITAL NUMBER	PRIMARY CONDITION	OPERATION	CAUSE OF DEATH
4550	Pulmonary TBc.	(1) 1st stage Thoracoplasty with recovery (2) Anaesthetic death (spinal) before 2. stage was begun.	This was an anaesthetic death. No other cause of death found. Autopsy.
6730	Cancer of Stomach	Gastroenterostomy	Thrombosis superior colic vessels. Necrosis portion Transverse Colon. Autopsy.
11248	Empyema, Pulmonary TBc.	Drainage	Pulmonary TBc. Tuberculous Pericarditis. Autopsy.
8421	Empyema. Cancer Lung	Drainage Empyema.	Cancer Lung. Brain Abscess. Autopsy.
20016	Perforated Duodenal Ulcer	Closure	Peritonitis, Closure satisfactory. Autopsy.
21755	Retro-esophageal abscess	Drainage Abscess	Bronchopneumonia. Autopsy.
1451	Perforative Appendicitis Peritonitis	Appendectomy Drainage	Peritonitis. No Autopsy.
31505	Gangrene Legs Arteriosclerosis	Bilateral Amputation	Bronchopneumonia. No Autopsy.
27426	Osteomyelitis Foot Arteriosclerosis	Amputation Foot	Bronchopneumonia. Autopsy.
31506	Brain Tumor Bilateral acoustic	Removal one side	Shock. Respiratory Failure. Autopsy.

Analysis of Deaths (*Continued*)

HOSPITAL NUMBER	PRIMARY CONDITION	OPERATION	CAUSE OF DEATH
30140	Toxic Goiter. Goiter heart (myocarditis)	Subtotal thyroidectomy	Cardiac failure, myocarditis. Autopsy.
22643	Acromegaly. Pituitary Tumor.	Partial Removal	Cerebral edema. Pressure. Autopsy.
5664	Perforative Appendicitis Appendix abscess. Peritonitis.	Appendectomy Drainage	Peritonitis. Thrombosis sup. mesenteric. Embolism Superior mesenteric artery. Autopsy.
35612	Cancer Head of Pancreas and common bile duct.	Exploratory Laparotomy	Shock? No autopsy.
39205	Cholecystitis Cholelithiasis Chronic myocarditis	Cholecystectomy	Advanced myocarditis. Dilation rt. ventricle and tricuspid ring. Renal insufficiency. Autopsy.
2033	Perforated marginal ulcer following previous Gastroenterostomy	Closure ulcer. Reconstruction old gastroenterostomy Jejunostomy.	Peritonitis. Bilateral pneumonia.
7460	Gall stones in Gall bladder and common duct.	Cholecystectomy, Choledochotomy with removal of 17 stones from common D.	Hemorrhage from stomach 6 days post operative. Gastric and esophageal lesions. Hemorrhagic pancreatitis with fat necrosis. Autopsy.
12975	Recurrent Exophthalmic Goiter	Subtotal thyroidectomy	Acute post-operative Hyperthyroidism with thyroid crisis. No autopsy.
16818	Deep Abscess of Neck Acute mediastinitis	Drainage Abscess and Mediastinum	Respiratory Failure Mediastinitis No autopsy.

HOSPITAL NUMBER	PRIMARY CONDITION	OPERATION	CAUSE OF DEATH
14732	Tumor Chest Lipoma mediastinum	(1) exploratory Thoracotomy (2) contemplated partial removal. Sudden death before operation. began.	Pleural Eclampsia. No cause of death determined. Autopsy.
20081	Acute Cholecystitis	Cholecystectomy	Bilateral acute parotitis, Bilateral bronchopneumonia. No autopsy.
18672	Cancer Thyroid, Acute Tracheal Obstruction	Tracheotomy	Died 22 days after op. from hemorrhage from Tracheotomy wound. Cancer Thyroid Autopsy.
16824	Mycotic Aneurysm Thigh, infected.	Ligation Femoral Artery and Vein.	Septicemia, multiple Emboli suphrenic abscess Autopsy.
23774	Cancer Head of Pancreas Metastasis to chest.	Exploratory Laparotomy	Cause of death not determined. Died 48 hours. No symptoms or signs to indicate cause of death. No autopsy.
27418	Cancer Breast	Radical Breast Amputation	Septicemia following wound infection. Endocarditis. Autopsy.
78	Lung Abscess	2 stage operation, Thoracotomy and Drainage	Pulmonary Gangrene. Autopsy.
18589	Mediastinal Tumor	Removal	Died with respiratory distress-dyspnea. Clinically no cause for death determined. Autopsy failed to reveal cause of death.

HOSPITAL NUMBER	PRIMARY CONDITION	OPERATION	CAUSE OF DEATH
27075	Cancer Lung	Exploratory Thoracotomy.	Respiratory Failure. Extensive Cancer of Lung. Autopsy.
25313	Gall stones in Common Duct.	Cholecystostomy	2 months after operation developed lobar pneumonia and lung abscess. Prostatic abscess. Autopsy.
34693	Cancer Stomach, pyloric. Obstruction	Gastroenterostomy	Ileum instead of Jejunum anastomosed. Peritonitis, Pneumonia. Autopsy.
32943	Cancer Sigmoid	Two stage Resection	Pneumonia. No other cause. Autopsy.
28964	Diabetes. Gangrene Foot.	Thigh Amputation	Bronchopneumonia. Necrosis Pancreas. Autopsy.
33617	Gall stones in Common Duct Diabetes, heart disease.	Cholecystectomy, Choledochotomy and drainage Common Duct	Died 7 weeks after operation. Cardiac Failure. Bronchopneumonia. Cirrhosis liver. Subphrenic Abscess. Advanced Arteriosclerosis. Autopsy.

The conditions in which death occured following operation may be grouped under several headings:

(1) The Acute Emergency Conditions accounted for 7 deaths. These included (a) Three cases of acute perforation of gastric or duodenal ulcer, which died of general peritonitis. Autopsies in two cases proved that the operative treatment was satisfactory; in the third it was presumably so. (b) Two acute cases of perforative appendicitis with general peritonitis, in which death was due to peritonitis. (c) One case of intussusception in a baby with gangrene of the bowel and peritonitis, in which death was due to peritonitis. (d) One case of compound comminuted fracture of the skull with laceration of the brain, in which death was due to shock.

(2) Cancer in its various forms accounted for 10 deaths. In 3 of the 10 cases death occurred in the hospital and therefore is counted as an operative fatality, but the operation was in no way responsible for the death. In 7 cases the operative procedure contributed to the fatal outcome. The 10 cases included 2 cases each of cancer of the sigmoid, stomach, lung, and pancreas, and one case each of cancer of the thyroid and breast. Autopsies were obtained in 7 of the 10 cases. These showed that only in 1 or possibly 2 cases could the operation have been more than palliative. They revealed 3 surgical faults. In an inoperable cancer of the stomach with pyloric obstruction the ileum instead of the jejunum was anastomosed to the stomach in the performance of a gastroenterostomy. The autopsy showed pneumonia and local peritonitis. In a second inoperable cancer of the stomach with pyloric obstruction gastro-enterostomy was followed by thrombosis of the superior colic vessels with necrosis of a portion of the transverse colon. In retrospect and because of the technical difficulties and the great extent of the disease which made recognition of structures difficult it would perhaps have been better judgment not to have attempted gastro-enterostomy in either case. The third fault was a post-operative wound infection following a radical breast operation. The local infection was followed by septicaemia (proven) and death. Autopsy showed an old and recent. endocarditis.

(3) Brain Tumors. There were 4 deaths following the partial or complete removal of brain tumors. Three of the deaths were due to respiratory failure in tumors which encroached upon the medulla; one a dermoid cyst of the cerebellum, one a cerebello-pontine meningioma, one a bilateral acoustic tumor. One death followed the partial removal of an hypophyseal tumor associated with acromegaly and due presumably to compression, the result of cerebral edema. Autopsies were obtained in all cases.

4) Chest Conditions. Exclusive of the two deaths in cancer of the lung noted under "(2)" above, there were 5 deaths in chest conditions. The conditions include 2 cases of pulmonary tuberculosis, 2 cases of intrathoracic tumor, and one case of pulmonary abscess. In 2 cases (pulmonary tuberculosis; mediastinal lipoma) death occurred on the operating table before the operation had begun. One of the deaths was undoubtedly due to spinal anaesthesia, the other to novocaine anaesthesia or to pleural eclampsia. Autopsies were obtained in both. One death occurred long after the drainage of empyaema in a case of pulmonary tuberculosis. The autopsy showed a wide-spread tuberculosis including a tuberculous pericarditis. One death was due to a rapidly spreading pulmonary gangrene following the drainage (2 stage operation) of a large pulmonary abscess. One death followed the successful complete removal of a benign mediastinal tumor. The cause of death remains unexplained. The patient after operation developed an unexplained dyspnea. There was no pneumothorax, no collapse of the lung, no accumulation of fluid in the chest. The autopsy entirely failed to explain the death.

(5) Thyroid Conditions. There were 4 deaths following operation on the thyroid gland. This represents a mortality (136 thyroidectomies) of 2.9%. One death occurred in a patient with a long-standing recurrent adenoma who after operation became irrational and continued so until her death on the 16th post-operative day. Autopsy showed a bronchopneumonia. One death occurred soon after the completion of the operation from cardiac failure in a person with a long-standing toxic goiter and advanced myocoarditis. One patient, desperately ill

with recurrent exothalmic goiter, died in a "thyroid crisis" (acute post-operative hyperthyroidism) in spite of the most careful pre-operative treatment. The fourth case died from pulmonary suppuration one month after removal of a thyroid adenoma. Following operation the patient was hoarse and evidently had a recurrent nerve palsy. He developed a respiratory infection followed by a profuse purulent expectoration. X-ray studies showed a wide-spread bronchiectasis which previously had been latent. Autopsy showed a bilateral bronchiectasis with bronchiectatic abscesses. Examination of the operative wound showed ligatures on one recurrent nerve and on a small branch of the other. In all likelihood the palsy of the vocal cord played a part in the development of the pulmonary suppuration.

(6) Gall Bladder and Biliary Duct Conditions. These accounted for 5 deaths. As there were 128 operations upon the gall bladder and common duct this represents a mortality of 3.9%. An analysis of the deaths shows that 1 death followed cholecystectomy in acute cholecystitis; the operation being followed by acute bilateral parotitis, and acute bilateral bronchopneumonia. One death followed cholecystectomy performed for chronic cholecystitis and cholelithiasis, the patient dying 4 days after operation with symptoms of cardiac failure and renal insufficiency. The autopsy showed advanced myocarditis with dilatation of the right ventricle. Three deaths followed cholecystectomy combined with the opening of and the removal of stones from the common duct. These deaths occurred in old people (one man 80 years of age) with deep jaundice. One case died six days after operation from a sudden massive hemorrhage into the stomach and at autopsy erosion of the stomach and esophagus and a hemorrhagic pancreatitis were found. Two cases died 2 months after operation and at autopsy showed pneumonia, lung abscess, myocarditis and arteriosclerosis.

(7) Miscellaneous Conditions. These accounted for 8 deaths. The conditions include 2 cases of deep abscess of the neck with mediastinitis, and 1 case each of diverticulum of the esophagus, splenomegaly (Banti's disease), osteomyelitis of the foot, infected mycotic aneurism of the thigh, diabetic gan-

grene of the foot and arteriosclerotic gangrene of the legs. Autopsies were obtained in 7 of the 8 cases. The two cases of deep cervical abscess died of mediastinitis and bronchopneumonia; the case of diverticulum of the esophagus developed a slough of the sac following the first stage and at autopsy showed a bronchopneumonia; the case of splenomegaly, following a splenectomy, developed a thrombosis of the splenic and portal veins as confirmed by autopsy; the case of osteomyelitis developed a frank post-anaesthetic pneumonia from which he died, this finding being confirmed by necropsy; the case of infected mycotic aneurism of the thigh, following ligation of the femoral artery and vein, developed septicaemia with multiple emboli and subphrenic abscess; the case of diabetic gangrene of the foot following a thigh amputation showed at autopsy necrosis of the pancreas and broncho-pneumonia; the case of bilateral arteriosclerotic gangrene of the legs, following a bilateral leg amputation, died with the clinical and X-ray manifestations of pneumonia. In this last case an autopsy was not obtained.

(b) Urologic Surgery. The New York Hospital houses two distinct urologic services. The one functions under the will of James Buchanan Brady and is an independent unit having 30 pavilion beds and the privileges of the private ward beds. It has its own staff, appointed by its Director, and has no fixed relation to the Medical School. The other service is a part of the Department of Surgery in the New York Hospital-Cornell Medical College Association, and it is to this latter service that this report refers. As stated, this sub-department of general surgery began its activities at the New York Hospital with an Out-Patient Department service but without a specified number of beds in the Hospital. To meet this lack it has continued to use for the care of patients and for teaching urologic surgery the 95 urologic beds at Bellevue Hospital, which constitutes a part of the Cornell division at this institution. Urologic cases were, however, from time to time admitted to the general surgical beds at the New York Hospital and this arrangement continued until March, 1933, when 10 pavilion beds were assigned to this service. This service as it exists at present consists

of 10 pavilion beds and an Out-Patient Department which functions three days per week.

During the year Sept. 1, 1932 to Sept. 1, 1933, 85 patients were admitted to the Urological service. Of these 63 cases were admitted to the ten urologic beds created in March, 1933; 22 to general surgical beds on Floors 5 and 6. Of the 85 cases, 54 were subjected to operation, the kind of operations being listed below. Following operation there were 6 deaths, an operative mortality of 10%. Of the 26 cases not subjected to operation 25 were discharged from the Hospital and 1 died. An analysis of the operative deaths follows the list of operations performed.

OPERATIONS IN UROLOGY

Repair Umbilical Hernia - Suprapubic Cystotomy	1
Bilateral Vasotomy - Suprapubic Cystotomy	4
Pan Cystectomy and Hysterectomy	1
Suprapubic Prostatectomy	9
Incision and Drainage Abscess Groin	1
Suprapubic Cystotomy - Implantation of Radium	5
Lithopexy	2
Bilateral Epididymectomy	2
Suprapubic Prostatectomy - Repair Diverticulum Bladder	2
Nephrectomy	1
Internal Urethrotomy - Suprapubic Cystotomy	1
Varicolectomy	2
Ureterotomy - Suprapubic Cystotomy	1
Repair Cryptorchism - Inguinal Hernia	1
Orchidectomy	1
Bilateral Epididymo-Vasotomy	1
Bilateral Inguinal Herniotomy	1
Excision Congenital Urethral Valve	1
Cystoscopy and Pyelogram	3
Incision Perineal Abscess	1
Thorek Operation	1
Second Stage Thorek	1

Excision Hydrocele	4
Excision Varicocele	1
Orchidopexy	5
Circumcision	1
Renal Calculus	1
Ureteral Calculus	1
Cystotomy	1
Undescended Testis	4
	62

Analysis of Deaths.

1. D. F., age 59. Admitted Oct. 10, 1932. Died Oct. 18, '32.
   Diagnosis: Chronic prostatitis.
   Operation: Suprapubic prastatectomy.
   Died 30 hours after operation from shock or myocardial failure.
   An autopsy was not obtained.
2. R. B. No. 11208.
   Diagnosis: Benign prostatic hypertrophy.
   Operation: Transurethral prostatectomy.
   On the sixth post-operative day he developed chills and fever. Blood culture showed a streptococcus septicaemia. Multiple blood transfusions were given.
   Autopsy showed multiple abscesses in kidneys, liver, spleen, etc.
3. J. McQ. No. 27846.
   Diagnosis: Carcinonoma Bladder.
   Operation: Cystotomy with Implantation of Radium.
   Sudden hemiplegia on 16th post-operative day. Death 2 months later.
   Autopsy showed lesions of the internal capsule and temporal lobe of the brain.
4. E. O'L. No. 31554.
   Diagnosis: Tumor Kidney (fibrosarcoma).
   Operation: Nephrectomy.
   On 8th day post-operative, abdomen became rigid with signs of peritonitis. Died following day.
   Autopsy showed extensive suppurative peritonitis.

Analysis of Deaths. (*Continued*).

5. C. M. No. 35231.
   Diagnosis: Carcinoma Bladder.
   Operation: Cystotomy with Implantation of Radium.
   Serious post-operative vomiting. Death on 13th post-operative day.
   Autopsy showed right ureter completely occluded.
6. F. E. No. 35665.
   Diagnosis: Carcinoma Bladder.
   Operation:: Cystotomy with Implantation of Radium.
   Complained of cardiac oppression immediately after operation. Anginal attacks. Died 24 hours after operation.
   Autopsy showed coronary changes in heart and diffuse hemorrhagic necrosis of the pancreas.

(c) Oto-Laryngology. As was the case with Urology, the sub-department of Oto-Laryngology began its activities on Sept. 1, 1932, with an Out-Patient Department, but without a specified number of hospital beds. Patients with oto-laryngologic conditions requiring operation were admitted from time to time to the general surgical wards. Also, an arrangement was made whereby patients seen in the Out-Patient department, and requiring operation, could be sent to the Manhattan Eye, Ear and Throat Hospital and operated upon there by members of our Out-patient Staff. Later in the year some semi-private beds on the private pavilions were opened for the reception of oto-laryngological patients and this arrangement continues at the present time. During the year 56 patients were admitted to the general surgical pavilions; 56 to the Manhattan Eye, Ear and Throat Hospital; and 65 to the semi-private floors of the New York Hospital, making a total of 177 patients. These were subjected to a variety of oto-laryngological operations, the large majority being tonsillectomies. Following operation there was one death in a patient with mastoiditis. A second death followed an esophagoscopy, the patient developing a fatal mediastinitis.

(d) Ophthalmology. This sub-department of surgery also began its activities with an Out-Patient Department, but

without specified hospital beds. It has retained its affiliation with the New York Eye and Ear Infirmary, and has not only cared for some of its patients in this institution, but has used it for teaching our students. The report of this sub-department will be considered under the activities of the Out-Patient Department.

(e) Orthopedic Surgery. What has been said for the sub-department Ophthalmology applies to Orthopedic Surgery. This sub-department has functioned largely through its Out-Patient Department, but has retained connections with the Hospital for the Ruptured and Crippled, and the State Orthopedic Hospital at West Haverstraw, New York.

(2) Private Floors. The private wards were serviced in the beginning by internes and assistant residents of the medical and Surgical departments. Later, on the recommendation of a Committee appointed to study the matter, the staff of the Private Wards was reorganized with two paid so-called residents who serve for one year, and two internes from the medical and Surgical Departments. This is the organization which exists at present.

Between Sept. 1, 1932 and Sept. 1, 1933, 780 patients were admitted to the private wards who were subjected either to surgical diagnostic procedures, to minor operations or to operations of greater or lesser magnitude. One hundred and six patients were subjected to diagnostic procedures including ventriculograms, 1; biopsies, 4; pyelograms, 59; cystoscopies, 39; ureterograms, 2; diagnostic punctures, 1. One hundred and twenty-five patients were subjected to ear, nose and throat operations of which 100 were tonsillectomies; 47 patients were subjected to strictly minor general surgical procedures of various sorts, and 502 patients were subjected to surgical operations of greater magnitude. In the entire group of 780 patients there were 23 deaths. An analysis of the deaths shows that there were no deaths in the 106 patients subjected to diagnostic procedures, 1 death in the 125 patients operated upon for ear, nose, and throat conditions (mastoidectomy), no deaths in the 47 patients

subjected to minor surgical procedures, and 22 deaths in the 502 patients subjected to surgical operations of greater magnitude. Twenty-nine blood transfusions, not included above, were given. The 780* patients were distributed among 59 surgeons.

(3) Out-Patient Department. After a good deal of discussion before the Hospital opened it was decided to unite the medical and surgical departments in the development of one Out-Patient Department. The idea was to organize a single diagnostic clinic manned by physicians and surgeons equally to which all patients (exclusive of obstetric and pediatric) were to be sent for examination. Coordinated with this central clinic was a general surgical clinic with its specialties of opthalmology, oto-laryngology, urology and orthopedics, and a general medical clinic with its specialties of neurology, dermatology, cardiology, and so forth. Under this form of organization a patient coming to the O. P. D. would be sent to the diagnostic clinic where his history and general physical examination would be made. Should any special information regarding this patient be desired he would be sent to any of the medical or surgical clinics which could contribute to the diagnosis. The diagnosis having been established the patient was to be sent to the proper medical or surgical clinic for treatment, or into the medical or surgical wards of the hospital. It is apparent under this form of organization that the central diagnostic clinic would function chiefly as a diagnostic clinic but might also function as a treatment clinic; the other coordinate clinics would function both as consultant and treatment clinics.

This form of organization was put into operation with the opening of the Out-Patient Department. Its disavdantages were appreciated, but its benefits, if it could be successfully carried out, were believed to out-weigh its disadvantages. Chief of its hoped for benefits were (1) to bring into closer association the medical and surgical departments, so that each might become

*65 of these patients were included previously in discussing the department of oto-laryngology.

more familiar with what the other had to offer in the diagnosis and treatment of disease and (2) to teach the medical student the proper relationship between medicine (in its larger sense) and its specialties; in other words, to teach the student in his first contact with him to view the patient as an individual who is sick rather than as a series of parts, each of which might require examination by a different individual. To demonstrate this to me important distinction, was to be the responsibility of the senior men in the diagnostic clinic.

This is not the proper place to relate the vicissitudes of the organization. It was continued from Sept. 1, 1932 to March, 1933, and was then abandoned. Of the reasons why it failed to succeed only two need to be mentioned. First, there was no one in authority to carry out the idea embodied in the organization and second, there developed a dissimilarity of viewpoint between the medical and surgical departments regarding the size the O. P. D. should assume. The medical department favored a small, select O. P. D.; the surgical department a much larger, more active O. P. D. Between Sept. 1932 and March 1933, a large number of patients each month were turned away from the O. P. D. at a time when the physical plant was only partly filled.The condition of affairs was a distinct disadvantage to the surgical department which depended upon the O. P. D. to fill its hospital beds. With the abandonment of this plan of organization the medical and surgical departments became independent organizations, but continued to retain affiliations in certain clinics, such as the gastro-intestinal, neurological, goiter and so forth. This to my mind, is a less ideal organization than the previous but seems necessary at the present time.

The report on the surgical O. P. D. for the past year cannot, unfortunately, be in any way complete. With the opening of an entirely new institution projected plans for keeping records when put into effect often need modification before they become satisfactory. I find that only by going back to the history of each individual patient could I assemble and classify the conditions for which patients came to the O. P. D. and determine their treatment and the results of treatment. This is a task which is quite possible of achievment, but when the number of

patients admitted to the surgical O. P. D. is considered (more than 20,000) it would require far too great an expenditure of time. Certain rough statements regarding the work of the O. P. D. may however, be made.

Between Sept. 1, 1932 and Sept. 1, 1933, 20,413 patients were admitted to the surgical O. P. D. Of this number 8064 were admitted to general surgery, 2537 to Urology, 3905 to Oto-laryngology, and 2114 to Orthopedics and fractures. The number for general surgery is only approximate, for one-half of the patients admitted to the diagonistic clinic between Sept. 1, and March 6, are credited to surgery. The figures given for the specialties in surgery are fairly accurate. The 20,418 patients made 65,369 visits to the O. P. D., an average of about 3 visits per patient. The average income per visit was about 85 cents.

From March, 1933, until the end of August, 1933 (the period during which the surgical O. P. D. functioned independently) not a single patient seeking advice or treatment from the surgical O. P. D. was refused admission to the surgical O. P. D. Service was promptly rendered and I am unable to find that any patients were kept waiting more than one-half hour before being seen. Records were kept of the patients seen in the general surgical O. P. D., who were advised to enter the hospital for surgical treatment There were 713 such patients, and of this number 500 entered the surgical pavilions and were there treated, while 213 patients failed to enter the hospital. The surgical conditions presented by these patients are listed below.

Classification by Disease of Patients to Whom Admission Slips Were Given and Record of Those Who Failed to Come In

Head - Brain - Spinal Cord - Peripheral Nerves.

	Admission slips given	*Not admitted.*
Fracture Skull	2	
Brain Tumor	4	
Trigeminal Neuralgia	2	2
Spina Bifida	1	
Spinal Cord Lesion	1	
Suboccipital Abscess	1	
Palsy	1	1
Epilepsy	2	
TBc Spine	1	
Repair of Nerve	1	1
	16	4

Face.

Epithelioma Face	3	
Infected Cyst Face	1	
Infected Cyst Cheek	2	
Infection Upper Lip	1	1
Sebacious Cyst	3	
Cellulitis Nose	2	1
Abscess Maxilla	2	
Carcinoma Tongue	1	
Submaxillary Gland Tumor	2	
Rannula	3	3
Thyroglossal Duct Cyst	2	
	22	5

Neck.

Thyroid disease	67	30
Branchiogenetic Cyst	1	1
Maligancy Thyroid	2	
Maligancy Esophagus	1	
Cervical Adenitis	9	2
Carotid Body Tumor	2	
Scar Neck	1	

Neck. (*Continued*).	*Admission slips given*	*Not admitted*
Tumor Neck	1	
Lipoma Neck	2	1
Sinus Neck	1	
	87	34
Thorax.		
Mastitis	7	3
Benign Breast Tumor	19	6
Malignant Breast Tumor	19	4
Empyema	1	1
Axillary Cyst	1	1
" Lipoma	2	
" Infection	2	
Tumor Back	1	
Lipoma Back	2	1
TBc Abscess Chest Wall	2	
Tumor Chest Wall	1	
Gumma Sternum	1	
	58	16
Abdomen.		
Appendicitis	60	11
Hernia - Inguinal	69	34
" Epigastric	4	2
" Femoral	7	2
" Umbilical	4	2
" Ventral	12	2
" Diaphragmatic	1	
Gall Bladder Disease	106	30
Gastric Ulcer	7	2
Pyloric Ulcer	7	3
Duodenal Ulcer	5	
Carcinoma Stomach	6	4
Rectum	9	2
Sigmoid	3	
Head of Pancreas	1	
Gastrointestinal	8	
Pyloric Obstruction	1	
Intestinal Obstruction	1	

	Admission slips given	*Not admitted*
ABDOMEN. (*Continued*).		
Lipoma Abdominal Wall	2	1
" Buttocks	1	
Tumor Abdomen	5	2
Tumor Abdominal Wall	1	1
Abscess Abdominal Wall	4	1
Obesity	3	
Colitis	1	1
Hemolytic Icterus	2	
Neoplasm Cecum	1	
Infection Umbilicus	1	
Abdominal Ulcer	2	
Inguinal Cyst	1	
Undescended Testicle	5	2
Prolapse Rectum	1	1
Hydrocele	3	1
Rectal Abscess	3	
" Tumor	1	
Anal Abscess	1	
Hemorrhoids	43	15
Fistula in Ano	28	3
Perirectal Abscess	1	1
Pilonidal Sinus	16	5
Pregnancy	1	1
Gastroenteritis	1	
	439	129
VASCULAR SYSTEM.		
Varicose Veins	7	4
Thrombo angiitis Obliterans	1	
Hemoplasty	1	
	9	4
EXTREMITIES.		
Upper		
Repair Flexor Tendon Hand	3	
Contracture Palm	4	2
Ganglion Wrist	3	1
Scar Elbow	1	
Infection Arm	1	

	Admission slips given	*Not admitted*
Extremities, *Upper. (Continued).*		
Infection Finger	2	
Cellulitis	2	
Osteomyelitis Thumb	1	1
Exostosis Metacarpal Bone	2	1
Fracture Arm	3	1
	22	6
Lower		
Burn Thigh	2	
Cellulitis Leg	4	
Elephantiasis	1	
Fracture Leg	3	1
Abscess Leg	3	1
Infection Leg	1	
Foot	1	1
Ulcer Leg	1	
Infection Ankle	2	1
	18	4
Skin and Subcutaneous Tissues.		
Furuncle	5	
Carbuncle	8	
	13	
Unclassified.		
Bursitis	4	
Diabetic Gangrene	2	
Hodgkin's Disease	2	
Osteomyelitis	5	
Abscesses	3	
Bone Tumor	2	1
Lymphadenoma	3	
Lymphosarcoma	1	
	22	1
Observation	3	
Miscellaneous	7	

Total admission slips given 713. Not admitted 213 (30%)

The figures show that of the patients seen between March 6th, and September 1, 1933 who presented conditions which in

our opinion required surgical treatment in the hospital pavilions 70% entered the Hospital and 30% failed to do so. An attempt has been made to follow the patients who have failed up to date to enter the hospital. Thus far the social service department has followed 128 of the 213 patients. Of the 128 patients, 17 were not found at the address given and have not been traced; 30 were admitted to other departments of the New York Hospital; 20 intend to enter the hospital but have not yet done so; 5 are still undecided as to treatment, 8 are free cases and have not entered because of the limitation of free beds, 3 refuse treatment, 15 have improved without surgical treatment and are content with their present condition, 8 have returned to their private physicians, and 22 have been operated upon at other hospitals.

In the Operating rooms of the general surgical O. P. D. a total of 317 minor surgical operations were performed. The conditions for which operation was performed are listed below. There were no deaths and no serious complications following these operations.

Operations Performed in the Minor Surgical Clinic of the Out Patient Department

September 1, 1932 *to September* 1, 1933.

Biopsy		7
Circumcision		2
Debridement		1
Dilatation of Sphincter		4
Excision of Appendages - Both Ears	1	
Calcified Mass - Gluteal region	2	
Carcinoma of Sweat Glands of Arm	1	
Cicatrix	3	
Comedones - Eyelids	1	
Fibroma - Finger	1	
Foot	1	
Toe	2	
Fibrosed Glands of Neck	1	
Foreign Body	5	
Ganglion Foot	2	

Operations Performed in Minor Surgical Clinic. (Cont.)

Excision Ganglion Wrist	10
Hemangioma - Ear	2
Keloid	1
Lipoma Arm	3
" Back	2
" Breast	1
" Chest	1
" Clavicular Region	1
" Frontal Region	5
" Gluteal Region	1
" Hip	1
" Neck	3
" Scapular Region	7
Mole	5
Necrotic Tissue	3
Neurofibroma Wrist	1
Papilloma Arm	2
" Back	1
" Cheek	1
" Finger	1
" Occipital Region	1
" Supraorbital Region	1
Pedunculated Tumor	3
Plantar Wart	1
Post-traumatic Cyst of Axilla	1
Sebacious Cyst of Axilla	1
	94
Sebaceous Cyst of Back	1
" " " Chest	4
" " " Chin	3
" " " Ear	20
" " " Face	7
" " " Finger	1
" " " Frontal region	10
" " " Gluteal region	1
" " " Hand	1
" " ' Jaw	1

Operations Performed in Minor Surgical Clinic. (Cont.)

Sebaceous Cyst of Penis		1
" " "	Neck	1
" " "	Scalp	23
" " "	Unlocated	1
Tumor - Unclassified - Arm		1
" "	Finger	5
" "	Leg	2
" "	Sternal Region	1
" "	Toe	1
Verruca		6
Xanthoma	Finger	1
"	Hand	1
"	Toe	1
		85
Incision - Frenulum of Tongue		1
" Strangulated Hemorrhoids		2
		3
Incision and Drainage:		
Abscess of Arm		4
	Axillary Region	9
	Breast	4
	Cervical Region	2
	Ear	1
	Finger	27
	Foot	1
	Gluteal Region	1
	Hand	2
	Jaw	1
	Knee	2
	Mouth, floor	1
	Neck	5
	Supraorbital region	1
	Thigh	3
	Toe	1
	Unclassified	2
		67
	Carbuncle	5
	Cervical Adenitis	2

Operations Performed in Minor Surgical Clinic. (Cont.)

Incision and Drainage	Felon	6
	Furuncle Cheek	1
	" Inguinal region	2
	" Neck	3
	Infected Cysts Ear	2
	" " Face	1
	" " Inguinal	1
	" " Scalp	1
	" " Unclassified	2
		26
Manipulation - Fracture external Condyle		1
Nerve Block		1
Onychectomy - Complete		15
" Partial		18
Paracentesis - abdominal		4
Suture of Lacerated Wounds		2
	TOTAL	317

A special activity in the Surgical O. P. D. is the Peripheral Vascular Clinic which has functioned the past year under the direction of Dr. Alice R. Bernheim. In connection with these patients a great deal of chemical laboratory work has been done which has been carried on in the chemical laboratories of the surgical department. A brief resume of the work is appended.

Peripheral Vascular Department

CLINIC REPORT

Number of patients seen:

	New	Old	Total
September, 1932	31	41	72
October	16	77	93
November	28	137	165
December	20	181	201
January, 1933	18	158	176
2nd 4 weeks	14	123	137
3rd " "	27	132	159
4th " "	11	138	149
5th " "	13	162	175
6th " "	13	143	156
7th " "	12	103	115
8th " "	11	95	106
9th " " (part)	6	51	57
	220	1541	1761

Treatment and Results.

	Number treated	Type of treatment Oral	Injection	Improved No.	%	Unimproved No.	%	Hospitalized
Thromboangiitis obliterans	38	29	16	23	77	8	23	0
Arteriosclerosis	53	32	21	41	77	12	23	1 *
Raynaud's disease	5	1	4	2	40	3	60	2**
Scleroderma	2	0	2	1	50	1	50	1***
Calcium Deficiency								
General	31	23	3	26	63	6	37	0
Paget's disease	7	7	0	5	71	2	29	0
Allergy	3	2	1	1	33	2	67	0
No diagnosis	3	2	1	0	....	3	100	0
Transfers	32							
Insufficiently treated	40							

* Amputation of thigh, resulting in death.
** One refused operation. One had ganglionectomy with improvement.
*** Parathyroidectomy. Results not yet determinable.

SODIUM CITRATE

306 liters of 2% sodium nitrate solution were given intravenously in approximately 1020 intravenous injections.

LABORATORY REPORT

Routine Work.
Blood Chemistry Determinations.

	Calcium	Phosphorus	Phosphatase	Fibrin	Albumin	Globulin
October, 1932	36	37	36	17	19	19
November	62	57	57	26	26	26
December	80	97	90	46	44	44
January, 1933	100	100	100	44	29	29
February	79	80	80	24	....	....
March	100	101	95	34	1	1
April	68	76	65	17	....	....
May	58	60	55	14	....	....
June	62	65	59	24	....	....
July	30	24	22	15	....	....
August	8	8	8	5	....	....
	683	705	667	266	119	119

Orthopedic Out Patient Department. During the year 3590 patients were admitted to the orthopedic Out-Patient department for various orthopedic conditions. They made 5602 visits to the department. Of this number 608 cases were "closed" during the year, meaning by this term that they had received sufficient relief and improvement not to warrant their return to the Clinic. The department responded to 48 consultations in the wards of the hospital and gave advice regarding the treatment of orthopedic conditions. It had no pavilion, semi-private or private service in the hospital.

Oto-Laryngology. During the year 3865 patients were admitted to the Oto-Laryngological Out-Patient Department and made a total of 12,313 visits to this department. In addition to this service 683 consultations were given in the pavilions or the clinic on hospital patients and 118 consultations in other departments of the Out-Patient dispensary. The service included a bronchoscopic clinic. As previously noted a certain number of these patients were treated in the pavilions and semi-private wards of this hospital and a certain number in the Manhattan Eye and Ear Infirmary.

Ophthalmology. During the year 3838 patients were admitted to the Ophthalmological Out-Patient Department and made a total of 7483 visits to the department. Of this number some 6735 were refracted for glasses; about 750 were given treatments of various kinds and 60 subjected to eye operations. In addition to this work 400 patients in the hospital pavilions were seen and examined by request of the different clinical departments.

Urology. During the year 1260 new patients were admitted to the Urological Out-Patient Department and made 7026 visits to this department. This is exclusive of the visits made to the Brady Urologic Clinic supervised by Dr. Lowsley. The department gave advice in 33 cases sent to the clinic by outside physicians. Special activities in this department are the sterility clinic devoted to the study and treatment of sterility in the male and the Circumcision Clinic.

Accident Pavilion. The Accident Pavilion was organized and has been conducted under the supervision of Dr. S. M. Crawford. It offers the community a 24 hour service receiving and attending to accident and emergency cases at all times. During the year September 1, 1932 to September 1, 1933, 2382 persons presented themselves for and were given emergency treatment and 409 additional persons presented themselves for examination. The total number of cases admitted to the accident pavilion was therefore 2981. Of this number 201 cases were admitted to the hospital pavilion and 1668 after receiving the necessary treatment were referred to the Out-Pa-

tient Department. A complete compilation and analysis of the conditions treated has been made by Dr. Crawford which is available to anyone interested. Briefly the conditions may be grouped as follows:

ACCIDENT PAVILION CASES.

	Total	Treated	Examined	Referred to O.P.D.	Admitted to Hos.
Head	121	101	28	76	20
Face	543	510	33	301	3
Neck	67	56	11	39	9
Thorax	59	38	21	36	12
Abdomen	220	36	184	97	96
Genito-urinary	24	3	21	19	4
Upper extremity	1276	1254	22	693	25
Lower extremity	524	496	28	313	15
Vascular	9	3	8	8	3
Skin	21	12	9	18	0
Miscellaneous	117	73	44	68	16
	2981	2582	409	1668	201

Anesthesia Service. With the opening of the hospital, Dr. Ella M. Hediger assumed charge of the anaesthesia service, and was assisted by four graduate nurse anaesthetists. As the operative work increased in the operating rooms and Out-Patient Dispensary it became necessary to add one nurse anaesthetist. The present staff, consists, then, of a chief anaesthetist and five graduate nurse anaesthetists. They serve the operating room, the Out-Patient Department, the Dental Clinic and the Accident Ward, and are engaged not only in the administration of anaesthesia but in teaching the administration of inhalation anaesthetics to the medical students. They assist in all local, spinal and avertin anaesthetics, recording the pulse, respiration and blood pressure of all patients subjected to these forms of anaesthesia.

In the year Sept. 1932 to Sept. 1933, 2609 anaesthetics were administered to patients in the operating rooms and Out-patient Dispensary; and 458 to patients in the Brady Urologic Clinic.

The anaesthetics given may be grouped as follows:

I. Surgical Department. 2609.

(1) Inhalation Anaesthesia, 1513.

(a) Drop Ether 361

(b) Intratracheal Ether 4

Surgical Department, 2609. (*Continued*).

(c) Nitrous oxide-oxygen 208
(d) Nitrous oxide-oxygen-ether 158
(e) Ethylene-oxygen 204
(f) Ethylene-oxygen-ether 568
(g) Ethyl-chloride 5
(h) Chloroform 5

(2) Local Anaesthesia, 613.
(a) Local Anaesthesia only 577
(b) Local supplemented by drop ether 7
(c) Local supplemented by Ethylene-oxygen 12
(d) Local supplemented by Ethylene-oxygen-ether 10
(e) Local supplemented by nitrous-oxide-oxygen 7

(3) Spinal Anaesthesia, 236.
(a) Spinal anaesthesia only 210
(b) Spinal supplemented by drop ether 3
(c) Spinal supplemented by nitrous oxide-oxygen 4
(d) Spinal supplemented by nitrous-oxide-oxygen-ether 3
(e) Spinal supplemented by Ethylene-oxygen . 12
(f) Spinal supplemented by Ethylene oxygen-ether 1
(g) Spinal supplemented by local 3

(4) Avertin Anaesthesia, 247.
(a) Basal anaesthesia, 234.
Supplemented by various forms of inhalation anaesthesia 217
Supplemented by local anaesthesia 13
Supplemented by local and inhalation anaesthesia 4
(b) Complete Avertin Anaesthesia 10
(c) Avertin Anaesthesia for medical conditions . 3

II. Brady Foundation, 458.
(1) Inhalation Anaesthesia 46

Brady Foundation, 458. (*Continued*).

(2)	Local Anaesthesia		102
(3)	Spinal Anaesthesia		295
(a)	Spinal alone	287	
(b)	Spinal supplemented by inhalation anaesthesia	8	
(4)	Avertin Anaesthesia, supplemented by inhalation anaesthesia		1
(5)	Paravertebral Anaesthesia		1
(6)	Sacral or para-sacral (supplemented by inhalation in 1)		1
(7)	Caudal Anaesthesia		8

In going over the above records it came rather as a surprise to me to find how large a proportion of anaesthetics given on the general surgical service the past year were inhalation (general) anaesthetics; for I had the impression that a larger proportion were local or spinal anaesthetics. It will be seen that general anaesthesia was given alone in 1513 cases, it supplemented other forms of anaesthesia in 298 cases. Eighteen hundred and eleven patients of a total of 2609 received inhalation anaesthesia, a percentage of 69. The reason for this becomes evident if a study of the operative list is made; for it is seen how large a proportion of abdominal conditions was subjected to operation in which general or inhalation anaesthesia has been used. An examination of the anaesthesia given in the Brady Urologic Clinic shows the reverse of the above; for the large proportion of anaesthetics given were spinal and local anaesthetics.

The complications following the administration of the above anaesthetics will only partly be reported at this time. Two deaths occurred on the operating table after the administration of an anaesthetic but before the operation had begun. These are listed as anaesthetic deaths. One death occurred following spinal anaesthesia in a patient who was to have been operated

upon for pulmonary tuberculosis (thoracoplasty). The usual amount of neocaine was administered in the usual way after 50 mg. of ephedrine had been given. At the time the draping of the patient had been completed he became cyanotic and his pulse imperceptible. In spite of all efforts at resuscitation, he died. The second death occurred in a twenty-four year old woman who was to be operated upon for a large intrathoracic tumor. The chest wall was infiltrated with 1% novocaine. Before the infiltration had been completed the patient rather suddenly had a convulsive seizure followed by a series of generalized convulsions. She died in a convulsion in spite of all efforts to control the situation. This death has been considered by some as a novocaine death, by others as one from pleural reflex or pleural eclampsia.

Post-operative pulmonary atelectasis occurred in 7 proven cases. In two there was a massive collapse of one lung, in 5 a partial collapse of one lung. This complication has been constantly looked for and on the slightest suspicion of its occurrence an X-ray of the chest has been taken. Lobar pneumonia followed the anaesthetic in 6 cases, some grade of bronchopneumonia in 25 cases, pulmonary infarct in 5 cases and pulmonary embolism in 1 case. A study of the less serious complications as bronchitis has not yet been made.

Surgical Pathology. The surgical Pathological Laboratory, under the direction of Dr. N. C. Foot, is concerned with the routine diagnosis of pathological specimens removed in the course of operations, with teaching the medical students and with research. The last two activities will be discussed under teaching and research. The first may properly be reported here. The routine work of the laboratory consisted the first year

(a) in the diagnosis from frozen sections in cases in which an immediate report was desired at the time of operation in order that the surgeons might decide upon the type and extent of operation. An average of three requests for such diagnosis per week was made throughout the year;

(b) in the gross and microscopic descriptions and diagnosis of all pathological material coming from the operating rooms.

This work covered not only pavilions but the private wards and Out-Patient Department;

(c) in the examination and diagnosis of material (tissue, fluids, sediments, etc.) coming from the Out-Patient Department and the medical wards. A copy of all descriptions and diagnoses were filed with the hospital histories and so become a part of the permanent hospital records.

During the year Sept. 1932 to Sept. 1933 a total of 1651 pathological specimens were carefully described, diagnosed and recorded in the hospital records. The number rose from 67 in September 1932 to over 200 in May and June 1933, then again fell to 145 in July and August. (The number has again risen to 200 in September, 1933). A detailed statement of the material submitted for examination will not be given in this report. The material is assembled and anyone particularly interested can consult Dr. N. C. Foot.

The Operating Rooms. Although the hospital has two floors of operating rooms (10th and 11th) only one (the 10th) has been in operation the past year. With the opening of the hospital the nursing personnel was organized under Miss Rogers, so as to conduct 7 operating rooms and 2 cystoscopic rooms. To properly conduct these rooms a personnel of 8 graduate nurses, from 5 to 7 undergraduate nurses, and 6 orderlies was deemed necessary. Due to the financial situation an attempt to cut this personnel was made during the year but in view of the increasing number of operations the original personnel had to be restored. The operating rooms serve all the surgical pavilions and the private floors and, therefore, it was found desirable to use the operating rooms for general surgery in the morning, the same operating rooms for surgical specialties in the afternoon. This arrangement has been quite satisfactory thus far. In addition to providing all facilities for the conduct of surgical operations, the tenth floor prepares and sterilizes all solutions for the entire hospital, prepares and sterilizes all dry supplies (gauze, etc.) for the entire hospital, prepares and sterilizes all gloves for the hospital excepting those used in the Woman's Clinic operating and delivery rooms, and prepares

and sterilizes saline and boric solutions for the entire Out-Patient Department. This in itself is a large task and is done by one graduate nurse, 3 full-time attendants, 1 part-time attendant and 1 orderly.

The organization of the operating rooms was rather quickly accomplished and the work has been proceeding smoothly. One criterion of the excellence of the surgical technique of operating rooms and surgeons is furnished by the incidence of infections in so-called "clean" or aseptic operations. The figures indicate that the incedence of infection thus far has been low. The one serious infection on the general surgical service in a "clean" case was one noted in the discussion of the mortality - a case of cancer of the breast which developed an infection from which the patient died.

II. Teaching. Surgical teaching is done practically entirely in the Hospital wards, Out patient dispensaries, and laboratories. It has been my hope to develop an educational program which would include undergraduate, graduate and extramural teaching, for it seems very clear that a hospital and medical school should, in order to fullfill its obligations to society, engage in these three forms of teaching. This educational program may be stated under the following headings:

(1) Undergraduate Teaching The Surgical Department includes the department of general surgery and the sub-departments of orthopedic surgery, urology, oto-laryngology and ophthalmology. The objective of the department of general surgery is to teach the undergraduate student the fundamental principles of surgery, surgical pathology, the principles and practical administration of anaesthesia and the diagnosis, surgical indications and treatment of surgical diseases, including fractures, as they occur in the wards of the hospital and the Out patient Dispensary. The objective of the sub-departments of orthopedic surgery, urology, oto-laryngology and ophthalmology is to teach the methods of examination, diagnosis and treatment of diseases coming within their special fields.

(2) Teaching of Internes. At the present time we have 6 Internes. With the hospital open to capacity there should be

12 Internes in Surgery, exclusive of those on the private floors. The purpose of our instruction is to give the internes who serve us the most profitable year we can and stimulate an interest in surgery so that some of them may go into surgery as a career.

(3) Graduate Teaching. This may be discussed under two headings:

(a) Fellows in Surgery. There is an evident need and a frequent demand on the part of young men planning a surgical career for 1 to 2 years of advanced work after the Interne year. Such men (possibly 10) could be designated as Fellows in Surgery and would be carefully selected from our own and other medical schools. Instruction would occur in the O. P. D., in the laboratory of experimental Surgery, in the laboratory of Surgical pathology and in the hospital wards through Staff rounds, clinics, seminars, etc. Candidates for these Fellowships might be young surgeons just beginning to practice. They would live outside the Hospital and if funds were available be paid $1500.00 per year for full work, less on a part-time basis. The cost of this field of teaching, of which I believe there is a real need, would, therefore, be $15,000.00 per year. The most desirable men in this group might be selected for further advanced work as Residents in Surgery.

(b) Residents in Surgery. This major effort in graduate teaching constitutes a part of our present full-time organization. The purposes of the course of instruction is to train young men as surgeons and as teachers of Surgery. At the present time there are 14 graduate students in residence in the Hospital. This number should be increased when all the hospital beds including those of Urology, Orthopedics, Ophthalmology and Oto-laryngology are available. It is my belief that these graduate students should be enrolled in the Graduate School of Cornell University and be candidates for advanced academic degrees. It would please me if steps were immediately taken in this direction. It is my belief also that the support of these men, with the possible exception of the two Resident Surgeons as in (a) above should be through funds outside of and in addition to the regular Surgical budget.

(4) Advanced Graduate Instruction, Associates in Surgery. It is desirable that a certain number of men who have taken and completed the graduate work in (3b) either here or elsewhere be kept in training for another period of from 1 to 5 years. These men are those who through their perviously demonstrated ability in organization, surgical diagnosis, operative surgery, teaching and research should be candidates for professorial posts in the Medical Schools of the country as these become vacant. Their additional experience should be in organization, operative surgery, teaching and research. They would live outside the hospital and receive approximately $5,000.00 per year in salary, which might be subject to increase as occassion demanded. If at the end of a five-year period as a maximum no positions had become available, either here or elsewhere, they would go out into practice but might retain affiliations with the institution as part-time men. It is my belief that this advanced group is very important to any large surgical clinic. With all hospital beds available general surgery needs 4, Orthopedic Surgery, Urology and Oto-laryngology, each 1. The financial outlay in salaries in the completed program is, therefore, $35,000.00. It has been my hope that Foundations interested in medical education will provide through scholarships, etc., for some of these men.

(5) Extramural Teaching. It has been my plan to establish teaching Clinics for physicians and surgeons in practice within a certain radius of the hospital. The purpose of these clinics would be to bring to these physicians and surgeons the newer developments in diagnosis and treatment of disease. If the Clinics were successful they would serve to bring physicians in the community in contact with the hospital and establish relations which would seem to be highly desirable.

(6) Affiliations with other Hospitals. An affiliation with a special Hospital for cancer, as the Memorial Hospital, is highly desirable and has been discussed. In addition to this, it appears desirable, as one visualizes the full development of the Hospital and Medical School, to establish affiliations with hospitals for orthopedic surgery and for eye, ear, nose and throat surgery. In orthopedic surgery especially is such an

affiliation desirable. Due to the nature of orthopedic conditions, their chronicity and the long period required to treat them, the New York Hospital of itself cannot hope to provide the number of beds necessary to attract the best men and to fully realize the best teaching for under-graduate and graduate students.

An educational program of this magnitude could not, under existing financial conditions, be put into effect entirely. What has been accomplished this first year will be discussed under the headings enumerated.

(1) The undergraduate teaching as outlined has been put into effect. The course of instruction in the principles of surgery embodying a series of operative procedures on living animals illustrating these principles could not be given last year but is being given this year (1933) to the third year class. In detail the course consists of 8 exercises of various kinds, supervised by a group of 10 instructors. The students are taught anaesthesia, surgical asepsis, the control of haemorrhage, the careful handling of and respect for living tissues, wound healing and the actual performance of some of the commoner surgical operations. Each exercise requires 3 hours; and every student is required to do considerable designated reading in connection with each exercise. The operations are performed with all the details and refinements of technic which obtain in a hospital operating room.

The course in Surgical pathology under the direction of Dr. N. Chandler Foot has been given to the entire third-year Class. During the year 1932-'33 it was given to the students in groups. This year it is being given to the entire class. The course consists of 12 exercises of 3 hours each and includes lectures, demonstrations of fresh tissue, of gross and microscopic specimens and slides and a study of a large number of microscopic preparations. Each student is given a loan collection of microscopic preparations for additional study. This feature alone has involved the preparation of 7500 microscopic slides this past year. At least 4 and often more instructors take part in the instruction during each exercise.

Instruction in the principles and practical administration of

inhalation anaesthesia has been given under the direction of Dr. Hediger. The course begins in the laboratory in Course (1) above,with practical talks and demonstrations on the dog. In this course the student administers the anaesthetic to the animals. The course is continued in the 4th year in the operating rooms and Out-Patient dispensary where the student acts first as an observer, - then gives the anaesthesia to patients under the supervision of a trained anaesthetist. Practically and actually thus far each student has spent 2 weeks in the operating room on anaesthesia, has had informal discussions about the principles of anaesthesia, has seen demonstrations in special types of anaesthesia as spinal, local, avertin, etc., has observed a varying number of inhalation anaesthetics and has himself given from 5 to 6 inhalation anaesthetics. We have not deemed it wise to allow students to give the anaesthetic in some of the major abdominal operations, such as gastric and gall-bladder operations. This year an arrangement has been made whereby the students will get additional experience in anaesthesia at Bellevue Hospital.

The teaching of surgical diagnosis, indications and treatment of surgical diseases including fractures has been conducted in the wards of the Hospital and the Out-Patient dispensary. The Third Year Students have their work in the wards of the Hospital; the Fourth Year Students in the Out-Patient department. In the wards of the Hospital the third year students act as clinical clerks and are assigned to patients as they come into the wards. They take the histories, do the physical examinations, perform the laboratory work such as blood and urine examinations upon the patients and attempt to make the diagnosis of their ailment. They follow their patients to the operating rooms and see the operations performed. They study the pathological material removed; and follow the post-operative course and see or do the dressings of the wounds. Should the patient die, they see the autopsy performed. This work is supplemented by ward visits by a senior surgeon 4 times per week which are teaching exercises of 1 hour each and designed to bring before the students the diagnosis, indications, treatment and post-operative treatment of surgical conditions in the hospital wards. It is further supplemented by a clinic

once a week in which either the interesting or unusual material is brought before the students or a subject illustrated by groups of patients is discussed with them. In the course of their stay in the wards each student is assigned a period during which he sees the emergency and accident cases that come to the hospital.

While the students are studying surgery as above, a special course in fractures is given. This consists of a series of lectures given once a week during one quarter on the general subject of fractures and a visit of 1½ hours once per week to the fracture clinic of Bellevue Hospital. The lectures and clinical work have been coordinated by Drs. Cornell and Bergamini of the New York Hospital and Bellevue Hospitals respectively so as to give the students the best instruction possible in the time given to the subject. Instruction in fractures is continued in the fracture clinic of the New York Hospital in the fourth year.

In the FOURTH YEAR the students who have completed the work outlined above, receive further instruction in surgery in the Out-Patient department. The students, divided in groups, serve for periods in the surgical diagnostic clinic, in the minor surgical operating and dressing rooms, in the fracture clinic and in the special clinics of orthopedic surgery, urology, oto-laryngology and ophthalmology. They act in the capacity of dispensary doctors whose work is supervised by members of the O. P. D. Staff. They are instructed by means of clinics, demonstrations and conferences. They spend the entire day, 6 days per week, for 1/3 the year in this work.

The teaching of oto-laryngology, urology, orthopedic surgery and ophthalmology is given in both the third and fourth years. In the third year the teaching (entire class) in each subject consists of 8 two or three hour sessions devoted to lectures, demonstration of methods of examination and clinical demonstrations on patients. In the fourth year the students in groups are assigned to the various special Out-Patient Clinics and there come in contact with a large amount of clinical material. The students act as clinical clerks and themselves take histories, make physical examinations and such special examinations in each specialty as may seem wise to the instructors. In the past year groups of students were taken to the Hospital for the

Ruptured and Crippled, and to the New York Eye and Ear Infirmary. In Ophthalmology a special course in ophthalmological pathology was given to supplement the course in this subject.

(2) Teaching of Internes. The teaching of internes has been under way since the opening of the Hospital. Instruction has been informal and practical. They have been instructed in history taking, methods of physical examination, surgical diagnosis, surgical pathology, pre and post-operative treatment, the care of wounds and operative treatment as illustrated in the operating rooms. Each interne is responsible for 30 patients in the hospital wards. Each rotates in the male and female wards so as to become familiar with the diseases of both sexes. Each interne also spends a period in the accident and emergency wards so as to come in contact with accident and emergency conditions. In the operating room the internes act as second assistants at the operating table and therefore learn surgical asepis and operative procedures. Not least important, he sees the pathology of the condition in all his patients. Instruction of the internes also includes staff rounds and conferences. Their instruction so far in anaesthesia has been deficient.

(3) Graduate Teaching. (a) Fellows in Surgery. This part of my educational program has not yet been put into effect.

(b) Residents in Surgery. This form of graduate teaching has been in effect since the opening of the Hospital. The object as previously noted is to train young men as surgeons and as teachers of surgery. The course of instruction is of 6 or more years duration and men who are selected for this course must be graduates of a Class A medical school and must have completed at least 1 year's internship in a Class A hospital. The earlier years of this course of training consist of work in the laboratory of Experimental Surgery, in the Out-Patient department, in the surgical pathological laboratory and in the wards of the Hospital. Gradually emphasis is placed on clinical work and the men assume greater and greater responsibilities in the care of patients. They are carefully instructed in surgical diagnosis, pre- and post-operative treatment and operative surgery. They act first as assistants in the operating rooms, later are al-

lowed to perform operations under the supervision of instructors and eventually perform certain operations independently. Their training culminates in the position of Resident Surgeon which is a position of responsibility and is awarded only to those who are capable of assuming it. The scope of training is at present limited due to the fact that we do not have all our surgical beds available, including general surgery, orthopedic surgery, urology and oto-laryngology; nor have we as yet made an arrangement for experience in gynecology. To give a comprehensive training in surgery we should give each man a large experience in general surgery, a lesser experience and training in the specialties of surgery. Through the cooperation of Dr. Lowsley, Director of Brady Foundation, we have been able to give our men a training in urological surgery. Further training in the specialties will have to wait upon the opening of the remaining surgical beds.

A survey of the surgical work of the past year as it applies to this educational effort shows that it has been successfully carried out considering the limitations imposed by financial and other circumstances. The two resident staffs in the past year cared for some 2000 surgical patients in the surgical wards and largely cared for some 8000 patients in the Out-Patient department. They have performed 1371 operations on patients in pavilions 5 and 6, the larger number of these major operations, and with a mortality of 2% with a minimum of post-operative infections and other complications and with excellent immediate results.

(4) Advanced Graduate Teaching. The two Resident Surgeons who served the Hospital from Sept. 1, 1932 to Sept. 1, 1933 have been taken on this year for the purpose of continuing their education in Surgery as outlined in our educational program. The one, at present, is working chiefly in the Out-Patient dispensary organization, the other is devoting himself to neurological surgery. Both are engaged in research and teaching. Bearing in mind the purpose of this advanced training we are planning this work so that they may gain a greater experience in surgery, in departmental organization, in teaching and in research.

(5) Extramural Teaching. Plans are under way for this form of teaching but they have not yet been put into effect. A survey of the City surrounding the Hospital within certain limits has been made and the doctors practicing within the specified area have been assembled and are being classified. It is hoped that the consummation of this work will not be too long delayed.

(6) Affiliations with other Hospitals. Little has thus far been done in this direction.

Research. The facilities for clinical research are excellent. The material in this Hospital is of great variety and interest; moreover the records of the New York Hospital dating back to 1791 furnish a veritable gold mine of material and experience. The surgical research laboratory offers opportunities for experimental research in surgery. This laboratory occupies the 6th and 7th floors of the Medical School building C and the 7th floor of building F and consists of an adequate number of operating and laboratory rooms and animal quarters. It is in charge of Dr. Sweet, who with his former staff of assistants and technicians was transferred from the old laboratory at the Cornell Medical School at 28th Street to the new quarters. The laboratory was opened for work in September 1932 and has been in operation since that time. In the organization of a new medical center it becomes necessary for the clinicians to slight the prosecution of research until the proper care of the patients and the proper teaching of the medical students can be organized. They are confronted with the problem of receiving and having to care for patients the moment the hospital opens, just as they are confronted with a group of medical students who must be taught. Notwithstanding the necessity this first year of confining our major interests to the care of patients and to teaching, the surgical department as a whole has not been inactive in research. I am appending an incomplete list of the work that has been published during the academic year, July 1, 1932 to July 1, 1933; of the work which has been completed and is in press. A fair amount of this clinical and experimental work has been initiated this past year; the larger amount was in progress before the new hospital and medical school opened.

List of Publications from the Surgical Department
From July 1, 1932 to July 1, 1933.

Group I.

Andrus, William DeW. :

Surgery of the Chest. Blumer's Practioner's Library.

Berliner, Milton L. :

Transportation of Particulate Matter from the Vitreous into the Optic Nerve.

Archives of Opthalmology Vol: 8:695, '32.

Birnbaum, George L. :

Syndrome of Pneumococcic Obstruction; experimental Production of Atelectasis or Lobar Pneumonia with Human pneumonia Sputum,

Arch. Int. Med. 51: 290, 1933.

Bishop, Courtney C. :

The response of the Rabbit to Pilocarpine administered into the Cerebrospinal Fluid. (with Light, Richard and Kendall, L. G.).

J. Pharm. & Exper. Therap. 47: 37, 1933.

Conway, Francis M.

Traumatic Ulnar Neuritis. Annals Surgery, Mar.'33.

Syphilis of the Clavicle.

Revista Medico Farmaceutica Panamericana, Feb. '33.

Draper, John W. :

Some Effects of High Pressure on Developing Marine Forms. (with Edwards, Dayton J.)

The Biological Bulletin, LXIII, No. 1, August 1932.

Dudley, Guilford S. :

Mikulics (Double Barrel) Type of Colonic Resection.

Surg. Clin. of N. A., April 1933, p. 311, Vol. 13.

Farr, C. E. :

Torsion of the Omentum. (with Bachmann, R. F.)

Annals Surgery 97: 766, 1933.

Ferguson, R. S. :

Cancer of the Prostate.

Am. Journal of Cancer 16: 4, 783, 1932.

Lymphosarcoma of the Prostate (with Stewart, F. W.)

Journ. Urology 28: 1, 93, 1932.

Case of Teratoma Testis.

Surg. Clin. of N. A.: 2, 483, April, 1933.
Behavior of Hormone of the Anterior Hypophysis in a Case of Teratoma Testis.
Amer. J. Roent. & Rad. 29: 4, 443, April, 1933.
Quantitative Behavior of Prolan A in Teratoma Testis.
Am. Journ. Cancer, June, 1933.

FINESILVER, EDWARD M. :
Dupuytren's Contracture (with Davis, John Staige)
Archives of Surgery 24: 933, 1932.
Establishment of Circulation in Tubed Skin Flaps. (with German, W. and Davis, John Staige).
Archives Surgery 26: 27, 1933.

GARLOCK, JOHN H. :
Fracture of the Internal Semilunar Cartilage,
Annals Surgery 96: 115, 1932.
Lateral Dislocation of Knee Joint.
Annals Surgery 97: 127, 1933.
Comminuted Fracture at Lower End of Tibea treated by open Reduction. Annals Surgery 97: 129, 1933.
The full-thickness Skin Graft. Its field of Applicability and technical considerations.
Annals Surgery 97: 259, 1933.

GLENN, FRANK :
Histopathologic Reactions of the Tracheotomy Wound. (with Richards, Lyman)
Arch. of Otolaryng. p. 389, 1932 (March).
Pilonidal Sinus - Review of 120 cases.
New Engl. J. Medicine, Sept. 22, 1932.

HANSSON, K. G. :
Body Mechanics in Medicine.
International Clinics Vol. VIII, Series 42.

HEUER, GEORGE J. :
Teaching of Graduate Surgery.
Journal Assoc. Am. Med. Colleges, July, 1933.
Acute Empyema. Journ. Thoracic Surg. I: 461, '32.
The Thoracic Lipomas.
Annals Surgery XCVIII: 801, 1933.

JECK, HOWARD, S. :
Fatal Embolism Due to Distension of Bladder with Air.

Trans. Am.Assoc. Genito-Urinary Surg. 25: 289, '32

KEYES, EDWARD, L. :

A Comparison of Clinical and Pathological Characteristics of 50 Prostatic Bars and Scleroses. J. of Urology, 29: No. 4, 383, 1933.

Five Year Cures of Cancer of the Testis, Prostate and Bladder. S. G. and O. 56: 462, 1933.

The Clinical Course of Bladder Neck Obstructions attributed to Sclerosis of Bar. Am. J. of Surgery 19: No. 2, 215, 1933.

Early History of Urology in New York. History of Urology. I, 72, 1933.

The Interests of a Urologist in 1880. Am. J. of Surgery 16: 540, 1933.

KNAPP, ARTHUR A. :

Von Recklinghausen's Disease: Report of a Case with Involvement of left Eyelid. J. A. M. A. Feb. 18th, 1933.

LEE, BURTON, J. :

End Results in the Treatment of Cancer of the Breast by Radical Surgery combined with Pre- and Post-operative Irradiation. Am. J. of Surgery 20: 405, '33.

Sweat gland Carcinoma of the Breast. (with Pack, George T. and Scharnagel, Isabel). S. G. and O., June 1933.

MCAULIFFE, GERVAIS WARD :

A Wet Suction Unit for the Ear, Nose and Throat. Ear, Eye, Nose and Throat Monthly, July, 1932.

Historical Sketches of Otology. The Eye, Ear, Nose and Throat Monthly, July, 1932

PALMER, ARTHUR :

Ozena - Etiology and Treatment. (with Janowsky, C.) The Eye, Ear, Nose and Throat Monthly, Feb. 1933.

SAMUELS, BERNARD :

Signifigance of Specific Infiltration at the Site of Injury in Sympathetic Ophthalmia. Trans. Opthal. Society, Vol. 80, 1932. Archives of Ophthal. Vol. 9, 340, 1933.

Venous Angioma of the Retina, Optic Nerve, Chiasm

and Brain. (with Krug, Ernest).
Trans. Am. Ophthal. Society, Vol. 80, 1933.

Stevens, Raymond :
Solitary Cyst of the Kidney. Am. J. of Surgery, Jan.'33.
Horse-shoe Kidney. Am. J. of Surgery, Feb. 1933.

Wallace, Charlton :
Painful Shoulder. Its Diagnosis and Treatment.
N. Y. State J. of Medicine.
Some Familiar Orthopedic Conditions with Cursory.
Observations.
Medical Journal and Record. 1933.

List of Publications from the Surgical Department
July 1, 1932 to July 1, 1933.

Group II.

Papers in Press or Completed.

Bergamini, Herbert, M. :
Fracture of the Patella with a review of 110 cases.
Observations of the Multiple drill hole treatment for
Fractures for delayed mal-union.
(read before the Surgical section of N. Y. A., Dec. '32)
The diagnosis and treatment of intraabdominal injuries.
(read before the Assoc. Italian Phys. in Am., May '33).

Berliner, Milton, L. :
Herpes Cornea following Hyperpyrexia induced by
Diathermy.
(accepted for publication by Arch. of Ophthal.)

Birnbaum, George L. :
Studies on the size and elastic recoil of the pneumonic
lobe. (ready for publication).

Bishop, Courtney :
The use of Ribbon Catgut in the repair of Kidney
Wounds. (with Lowsley, Oswald S.).
Annal. Surgery, to be published.
A new method of Repairing Kidney Wounds; an
experimental and Clinical Study. (with Lowsley O. S.).
S. G. and O. LVII: 494, 1933.

Bowers, Ralph :
Fracture of the Spine without Cord Symptoms.

Pancreatitis in Children.
The Appendix as a rare Cause of Intestinal obstruction.

CONWAY, FRANCIS M. :
Osteochondritis Dissecans. With a clinical study of 10 cases. In Press. Annals of Surgery.

CONWAY, HERBERT G. :
Arteriovenous Aneurysm (Congenital cirsoid of leg) (with Reid, Mont.) J. A. M. A, 101: 18, 1931.
Studies in cutaneous and subcutaneous Temperatures in Vascular Derangements of the Extremities. (presented in fulfilment of requirement for Master of Science Degree, U. of Cincinnati, 1932.

CORNELL, NELSON W. :
An Auto Blood Transfusion Apparatus. Am. J. Surg.
Fractures about the base of the radius in adults. Read before the Surgical section, Acad. Medicine, Dec. '32.
Acute Intestinal Obstruction at New York Hospital. Ann. Surg. 1932 June. not mentioned in 1932 Annual report.

DUDLEY, GUILFORD S. :
The Bladder and Pelvic Nerves in Relation to the Abdominoperineal Excision of the Rectum. (read before the Cornell Medical Research Society).
Cancer of the Thyroid Gland.

FARR, CHARLES E. :
Congenital Duodenal Stenosis.
The acute Abdomen in Infancy and Childhood.
Both read before the N. Y. Surgical Society.

DELZELL, W. R. :
Rupture of the Male Urethra.
Read before the Brooklyn Urological Society.

FERGUSON, R. S. :
Preliminary Note on the Occurrence of Intermedin in Melanoma and Related conditions. (with Hildebrand, G. E.) Read before the AM. Assoc, for Cancer Research. In press.

FINDLAY, ROBERT T. :
Acute Osteomyelitis in Children.
From Surgical Service, St. Mary's H. for Children.

A Traction Sleeve for Transportation of Extremity Fractures. From Surgical Service, Beekman St. Hos.

FINESILVER, EDWARD M. :

Gas Bacillus Infections.

To be published in the Journ. of Med. Soc. S. J.

GARLOCK, JOHN, H. :

Acute Appendicitis. Controllable Mortality Factors. Am. Journal of Surgery. In Press.

Excision of Extensive Epithelioma of Leg and Repair of defect by Tubular Skin Flap. Ann. Surg., in Press.

Reconstruction of Lower Lip, Chin and Neck for Contracture following burns. Ann. Surgery. In Press.

Actinomycosis of Transverse Mesocolon and great Omentum. Ann. Surgery. In Press.

GROVE, R. C. :

Congenital Atresia of the right posterior Nares.

Some Observations on the Etiology and Nature of Chronic Hyperplastic Sinusitis (with Cook, Robert A.)

HANSSON, K. G. :

A Study of the Vital Capacity in 1007 Patients with Trunk Deformities. A preliminary report, read before the Hospital of Ruptured and Crippled.

HEUER, GEORGE J. :

Diseases of the Pituitary. (with Meagher, Richard) Forthcoming issue of Cecil's Medicine - Since pub.

Deep Temperature Studies. Preliminary Report; read before the N. Y. Surgical Society.

Acute Empyema.

Read before the Penn. State Med. Society.

JECK, HOWARD S. :

Injuries to the Testis, Epididyma and Vas deferens. In Press.

EGGERS, HARRY :

An Important Type of Prismatic Distortion.

An inexpensive Telescopic Spectacle.

Both to be published shortly in the Arch. of Ophthal.

FELTER, ROBERT K. :

End Results in Medical and Surgical Treatment of Peptic Ulcer. (with Dr. Weintraub, Sidney)

X-ray Findings in the Post-Operative Stomach. (with Carty, John R. and Weintraub, Sidney).
Both accepted for publication.

Foot, Nathan Chandler :
The Masson Trichrome Staining Methods in Routine Laboratory Use. Stain Technology.
The Use, Signifigance and Interpretation of Silver Impregnation. Read before N. Y. Path. Soc., 1933.

Keyes, Edward L. :
Five Years Results of Suprapubic Radium Implantation into Bladder Tumors.
Read before AM. Assoc. Genito-urinary Surg., 1933.

Knapp, Arthur, A. :
Ocular Changes in Rachitic Dogs.
Ready for publication.
Von Recklinghausen's Disease.
To be published shortly.

Lee, Burton J. :
Cancer - A Community Health Problem.
The Mary Scott Newbold Lecture.
Read before AM. Coll. of Phys., Phila., March, '33.

Lyle, Henry, H. M. :
Ombredanne's Operation for Hypospadias.
Read before A. Surg. Assoc., in Washington.

Mahoney, William :
Hypoglycemia following Hypophysectomy as an explanation of so-called Cachexia Hypophyseopriva.
The Anterior Lobe of the Hypophysis in Carbohydrate Metabolism.
Both paper completed but not yet in Print.

Meagher, Richard :
Gliomas of the Corpus Collosum.
In Press. Since Published Zeitsch. Neur. u. Psych. 146:454. '33.
Diseases of the Pituitary. (with Heuer, George J.)
Since published in Cecil's Medicine.

McDonald, Clyde E. :
Metastatic Carcinoma of the Optic Nerve and Choroid. (with Paune, Britton F.) May be published in Arch. Ophthal.

McClellan, A. M. :

Sodium Citrate as a Method of Preventing the Formation of Blood Clots in the Bladder.
Accepted by J. of Urology.
Care of Bladder in Complete and Incomplete Retention of Urine.

Palmer, Arthur :

Importance of Sinus Diseases as a Focus of Infection.
Read before the Summit Med. Society, Feb. 1933.

Patterson, Russell H. :

The Therapeutic Effects following Interruption of the Sympathetic Nerves: Report on Certain Arthritic and Vascular Cases. Read before N. Y. Acad. of Med. February, 1933.

Pool, Eugene H. :

Duodenal Stasis.
Read before the Am. Surg. Assoc. - to be published in Annals Surg.

Riaboff, Peter John :

Uremia in Surgical Diseases of the Kidney and Urinary Passages. Completed but not in print.

Samuels, Bernard :

Sympathetic Scleritis.
Read before AM Ophthal. Soc., May 1933.
Necrotic Sarcomas. A Study of 84 Cases.
To be read before the Oxford Ophthal Soc., Oxford, England.
Anton Elschnig - A testimonial on his Seventieth Birthday.
To appear in Am. Arch. of Ophthal., July 1933.
Injuries to the Eyeball.
Read before N. J. State Board, Atlantic City, 1933.

Saunders, Edward Watts :

The role of Infection in Gastric and Duodenal Ulcers, Anaphylactic like Reaction Produced by the Streptococcus of Gastric Ulcer.
The Bacteriology of Cancer.
Read before the Montgomery Co. Med Soc., Phila., May, 1933.

Bacteriological Studies.
Read before the N. Y. Surg. Soc.ety, March, 1933.

Stevens, A. R. :

Pyourachus.
Management of Bilateral Urinary Calculi.
Both papers read in Washington, to be printed later.

Sutton, John E. :

The Gall bladder and the Bile Ducts; an embryological, anatomical, comparative physiological and experimental study. Submitted in an Essay Competition.
Functional Relations of the Gall Bladder and Bile Ducts.
Read before the Assoc. of Alumni, Bellevue, 1933.
The Gall Bladder and Bile Ducts.
Read before the N. Y. Surgical Soc., 1933.

Sweet, J. E. :

The Function of Gall Stones.
To appear in Annals Surgery.
The Cause of Death in High Intestinal Obstruction.
To appear in N. Y. State Journ. Medicine.

Visztreich, Fernand :

Ethmoidectomy with Accidental Rupture of the Cribiform Plate. Ready for Publication.

In addition to the work listed above some sixty pieces of clinical or experimental research have been begun but have not yet been completed.